6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 60

[EPA-HQ-OAR-2018-0815; FRL 10018-97-OAR]

RIN 2060-AU39

Test Methods and Performance Specifications for Air Emission Sources; Correction

AGENCY: Environmental Protection Agency (EPA).

ACTION: Correcting amendments.

SUMMARY: The Environmental Protection Agency (EPA) is correcting a final rule that was published in the Federal Register on October 7, 2020, and was effective on December 7, 2020. The final rule corrected and updated regulations for source testing of emissions. This correction does not change any final action taken by the EPA on October 7, 2020; this action corrects the amendatory instructions for Methods 4 and 5.

DATES: The correction is effective on [**INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER**].

ADDRESSES: The EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2018-0815. All documents in the docket are listed at *http://www.regulations.gov*. Although listed in the index, some information is not publicly available, e.g., confidential business information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy. Publicly available docket materials are available electronically through *http://www.regulations.gov*.

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SUPPLEMENTARY INFORMATION: In the final rulemaking published in the *Federal Register* on October 7, 2020 (85 FR 63394), there were some inadvertent errors made to Methods 4 and 5 due to unclear or incorrect amendatory instruction. In this correction document, we are clarifying and correcting the amendatory instructions for “Appendix A-3 to part 60” to correct the inadvertent errors and incorporate the revisions from the final rulemaking.

In Method 4, we are revising sections 8.1.3.1, 8.1.3.2, and adding sections 8.1.3.2.1, 8.1.3.2.2, 8.1.3.2.3, 8.1.3.2.4, 8.1.3.3, and 8.1.3.4. We are also revising section 12.1.3.

In Method 5, we are revising sections 12.3, 12.11.1, 12.11.2, 16.1.1.4, and 16.2.3.3.

List of Subjects 40 CFR Part 60

Environmental protection, Air pollution control, Incorporation by reference, Performance specifications, Test methods and procedures.

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Joseph Goffman,
Acting Assistant Administrator, Office of Air and Radiation.

Accordingly, 40 CFR part 60 is corrected as follows:

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

1. The authority citation for part 60 continues to read as follows:

Authority: 42 U.S.C. 7401 et seq.

2. Amend appendix A-3 to part 60 by:

a. In Method 4 by:

i. Revising sections “8.1.3.1” and “8.1.3.2”;

ii. Adding sections “8.1.3.2.1”, “8.1.3.2.2”, “8.1.3.2.3”, “8.1.3.2.4”, “8.1.3.3”, and “8.1.3.4”; and

iii. Revising section “12.1.3”; and

b. In Method 5 by revising sections “12.3”, “12.11.1”, “12.11.2”, “16.1.1.4”, and “16.2.3.3”.

The additions and revisions read as follows:

Appendix A-3 to Part 60—Test Methods 4 through 5I

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Method 4-Determination of Moisture Content in Stack Gases

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8.1.3.1 Leak Check of Metering System Shown in Figure 4-1. That portion of the sampling train from the pump to the orifice meter should be leak-checked prior to initial use and after each shipment. Leakage after the pump will result in less volume being recorded than is actually sampled. The following procedure is suggested (see Figure 5-2 of Method 5): Close the main valve on the meter box. Insert a one-hole rubber stopper with rubber tubing attached into the orifice exhaust pipe. Disconnect and vent the low side of the orifice manometer. Close off the low side orifice tap. Pressurize the system to 13 to 18 cm (5 to 7 in.) water column by blowing into the rubber tubing. Pinch off the tubing and observe the manometer for one minute. A loss of pressure on the manometer indicates a leak in the meter box; leaks, if present, must be corrected.

8.1.3.2 Pretest Leak Check. A pretest leak check of the sampling train is recommended, but not required. If the pretest leak check is conducted, the following procedure should be used.

8.1.3.2.1 After the sampling train has been assembled, turn on and set the filter and probe heating systems to the desired operating temperatures. Allow time for the temperatures to stabilize.

8.1.3.2.2 Leak-check the train by first plugging the inlet to the filter holder and pulling a 380 mm (15 in.) Hg vacuum. Then connect the probe to the train, and leak-check at approximately 25 mm (1 in.) Hg vacuum; alternatively, the probe may be leak-checked with the rest of the sampling train, in one step, at 380 mm (15 in.) Hg vacuum. Leakage rates in excess of 4 percent of the average sampling rate or 0.00057 m^3/min (0.020 cfm), whichever is less, are unacceptable.

8.1.3.2.3 Start the pump with the bypass valve fully open and the coarse adjust valve completely closed. Partially open the coarse adjust valve, and slowly close the bypass valve until the desired vacuum is reached. Do not reverse the direction of the bypass valve, as this will cause water to back up into the filter holder. If the desired vacuum is exceeded, either leak-check at this higher vacuum, or end the leak check and start over.

8.1.3.2.4 When the leak check is completed, first slowly remove the plug from the inlet to the probe, filter holder, and immediately turn off the vacuum pump. This prevents the water in the impingers from being forced backward into the filter holder and the silica gel from being entrained backward into the third impinger.

8.1.3.3 Leak Checks During Sample Run. If, during the sampling run, a component (*e.g.,* filter assembly or impinger) change becomes necessary, a leak check shall be conducted immediately before the change is made. The leak check shall be done according to the procedure outlined in section 8.1.3.2, except that it shall be done at a vacuum equal to or greater than the maximum value recorded up to that point in the test. If the leakage rate is found to be no greater than 0.00057 m^3/min (0.020 cfm) or 4 percent of the average sampling rate (whichever is less), the results are acceptable, and no correction will need to be applied to the total volume of dry gas metered; if, however, a higher leakage rate is obtained, either record the leakage rate and plan to correct the sample volume as shown in section 12.3 of Method 5, or void the sample run.

NOTE: Immediately after component changes, leak checks are optional. If such leak checks are done, the procedure outlined in section 8.1.3.2 should be used.

8.1.3.4 Post-Test Leak Check. A leak check of the sampling train is mandatory at the conclusion of each sampling run. The leak check shall be performed in accordance with the procedures outlined in section 8.1.3.2, except that it shall be conducted at a vacuum equal to or greater than the maximum value reached during the sampling run. If the leakage rate is found to be no greater than 0.00057 m^3 min (0.020 cfm) or 4 percent of the average sampling rate (whichever is less), the results are acceptable, and no correction need be applied to the total volume of dry gas metered. If, however, a higher leakage rate is obtained, either record the leakage rate and correct the sample volume as shown in section 12.3 of Method 5 or void the sampling run.

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12.1.3 Volume of Water Collected in Silica Gel.

$$V_{wsg(std)} = \frac{(W_f - W_i)RT_{std}}{P_{std}M_wK_2} \qquad \textit{Eq. } 4\text{-}2$$

$$= K_3(W_f - W_i)$$

Where:

K_3 = 0.001335 m^3 /g for metric units = 0.04716 ft^3 /g for English units.

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Method 5—Determination of Particulate Matter Emissions From Stationary Sources

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12.3 Dry Gas Volume. Correct the sample volume measured by the dry gas meter to standard conditions (20 °C, 760mm Hg or 68 °F, 29.92 in. Hg) by using Equation 5-1.

$$V_{m(std)} = V_m Y \frac{T_{std}(P_{bar} + \frac{\Delta H}{13.6})}{T_m P_{std}} \quad Eq. 5-1$$

$$= K_1 V_m Y \frac{P_{bar} + (\frac{\Delta H}{13.6})}{T_m}$$

Where:

K_1 = 0.38572 °K/mm Hg for metric units = 17.636 °R/in. Hg for English units.

NOTE: Equation 5-1 can be used as written unless the leakage rate observed during any of the mandatory leak checks (i.e., the post-test leak check or leak checks conducted prior to component changes) exceeds L_a. If L_p or L_i exceeds La, Equation 5-1 must be modified as follows:

(a) Case I. No component changes made during sampling run. In this case, replace V_m in Equation 5-1 with the expression:

$$(V_m - (L_p - L_a)\theta)$$

(b) Case II. One or more component changes made during the sampling run. In this case, replace Vm in Equation 5-1 by the expression:

$$[V_m - (L_1 - L_a)\theta_1 - \sum_{i=2}^{n} (L_1 - L_a)\theta_p]$$

and substitute only for those leakage rates (L_i or L_p) which exceed L_a.

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12.11.1 Calculation from Raw Data.

$$I = \frac{100T_s[K_4V_{1c} + \frac{V_mY}{T_m}(P_{bar} + \frac{\Delta H}{13.6})}{60\theta v_s P_s A_n} \qquad \textit{Eq. } 5.7$$

Where:

K_4 = 0.003456 ((mm Hg)(m^3))/((ml)(°K)) for metric units,

= 0.002668 ((in. Hg)(ft^3))/((ml)(°R)) for English units.

12.11.2 Calculation from Intermediate Values.

$$I = \frac{T_s V_{m(std)} P_{std} 100}{T_{std} v_s \theta A_n P_s 60(1 - B_{ws})} \qquad \textit{Eq. } 5\text{-}8$$

$$= K_5 \frac{T_s V_{m(std)}}{T_{std} v_s A_n \theta (1 - B_{ws})}$$

Where:

K_5 = 4.3209 for metric units = 0.09450 for English units.

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16.1.1.4 Calculate flow rate, Q, for each run using the wet test meter volume, V_w, and the run time, θ. Calculate the DGM coefficient, Y_{ds}, for each run. These calculations are as follows:

$$Q = K_1 \frac{P_{bar} V_w}{(T_w + T_{std})\theta} \qquad \textit{Eq. } 5\text{-}9$$

$$Y_{ds} = \frac{V_w (T_{ds} + T_{std}) P_{bar}}{V_{ds}(T_w + T_{std})(P_{bar} + \frac{\Delta p}{13.6})} \qquad \textit{Eq. } 5\text{-}10$$

Where:

K_1 = 0.38572 °K/mm Hg for metric units = 17.636 °R/in. Hg for English units.

V_w = Wet test meter volume, liter (ft3).

V_{ds} = Dry gas meter volume, liter (ft3).

T_{ds} = Average dry gas meter temperature, °C (°F).

T_{adj} = 273.15 °C for metric units = 459.67°F for English units.

T_w = Average wet test meter temperature, °C (°F).

P_{bar} = Barometric pressure, mm Hg (in. Hg).

Δp = Dry gas meter inlet differential pressure, mm H_2O (in. H_2O).

θ = Run time, min.

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16.2.3.3 Calculate the standard volumes of air passed through the DGM and the critical orifices, and calculate the DGM calibration factor, Y, using the equations below:

$$V_{m(std)} = \frac{K_1 V_m [P_{bar} + \left(\frac{\Delta H}{13.6}\right)]}{T_m} \qquad \textit{Eq.}\ 5\text{-}12$$

$$V_{cr(std)} = K' \frac{P_{bar}\theta}{\sqrt{T_{amb}}} \qquad \textit{Eq.}\ 5\text{-}13$$

$$Y = \frac{P_{bar}\theta}{V_{m(std)}} \qquad \text{Eq. 5-14}$$

Where:

$V_{cr(std)}$ = Volume of gas sample passed through the critical orifice, corrected to standard conditions, dscm (dscf).

K_1 = 0.38572 °K/mm Hg for metric units = 17.636 °R/in. Hg for English units.

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